

SEQUENCE LISTING

<110> AVENTIS PHARMA SA

US GOVERNMENT of the UNITED STATES

<120> NUCLEIC ACID OF THE HUMAN ABCC11 GENE, VECTORS
CONTAINING SUCH NUCLEIC ACID, AND USES THEREOF

<130> ABCC11 GENE

<140> ST01005

<141> 2002-03-05

<150> 60/272,757

<151> 2001-03-05

<160> 31

<170> PatentIn Ver. 2.1

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 Met Arg Phe Lys Lys Phe Phe Leu Gln Glu Ser Pro Val Phe Tyr Val
 450 455 460
 Gln Thr Leu Gln Asp Pro Ser Lys Ala Leu Val Phe Glu Glu Ala Thr
 465 470 475 480
 Leu Ser Trp Gln Gln Thr Cys Pro Gly Ile Val Asn Gly Ala Leu Glu
 485 490 495
 Leu Glu Arg Asn Gly His Ala Ser Glu Gly Met Thr Arg Pro Arg Asp
 500 505 510
 Ala Leu Gly Pro Glu Glu Glu Gly Asn Ser Leu Gly Pro Glu Leu His
 515 520 525
 Lys Ile Asn Leu Val Val Ser Lys Gly Met Met Leu Gly Val Cys Gly
 530 535 540
 Asn Thr Gly Ser Gly Lys Ser Ser Leu Leu Ser Ala Ile Leu Glu Glu
 545 550 555 560

Met His Leu Leu Glu Gly Ser Val Gly Val Gln Gly Ser Leu Ala Tyr
 565 570 575

 Val Pro Gln Gln Ala Trp Ile Val Ser Gly Asn Ile Arg Glu Asn Ile
 580 585 590

 Leu Met Gly Gly Ala Tyr Asp Lys Ala Arg Tyr Leu Gln Val Leu His
 595 600 605

 Cys Cys Ser Leu Asn Arg Asp Leu Glu Leu Leu Pro Phe Gly Asp Met
 610 615 620

 Thr Glu Ile Gly Glu Arg Gly Leu Asn Leu Ser Gly Gly Gln Lys Gln
 625 630 635 640

 Arg Ile Ser Leu Ala Arg Ala Val Tyr Ser Asp Arg Gln Ile Tyr Leu
 645 650 655

 Leu Asp Asp Pro Leu Ser Ala Val Asp Ala His Val Gly Lys His Ile
 660 665 670

 Phe Glu Glu Cys Ile Lys Lys Thr Leu Arg Gly Lys Thr Val Val Leu
 675 680 685

 Val Thr His Gln Leu Gln Tyr Leu Glu Phe Cys Gly Gln Ile Ile Leu
 690 695 700

 Leu Glu Asn Gly Lys Ile Cys Glu Asn Gly Thr His Ser Glu Leu Met
 705 710 715 720

 Gln Lys Lys Gly Lys Tyr Ala Gln Leu Ile Gln Lys Met His Lys Glu
 725 730 735

 Ala Thr Ser Asp Met Leu Gln Asp Thr Ala Lys Ile Ala Glu Lys Pro
 740 745 750

 Lys Val Glu Ser Gln Ala Leu Ala Thr Ser Leu Glu Glu Ser Leu Asn
 755 760 765

 Gly Asn Ala Val Pro Glu His Gln Leu Thr Gln Glu Glu Glu Met Glu
 770 775 780

 Glu Gly Ser Leu Ser Trp Arg Val Tyr His His Tyr Ile Gln Ala Ala
 785 790 795 800

 Gly Gly Tyr Met Val Ser Cys Ile Ile Phe Phe Phe Val Val Leu Ile
 805 810 815

 Val Phe Leu Thr Ile Phe Ser Phe Trp Trp Leu Ser Tyr Trp Leu Glu
 820 825 830

 Gln Gly Ser Gly Thr Asn Ser Ser Arg Glu Ser Asn Gly Thr Met Ala
 835 840 845

 Asp Leu Gly Asn Ile Ala Asp Asn Pro Gln Leu Ser Phe Tyr Gln Leu
 850 855 860

 Val Tyr Gly Leu Asn Ala Leu Leu Ile Cys Val Gly Val Cys Ser
 865 870 875 880

 Ser Gly Ile Phe Thr Lys Val Thr Arg Lys Ala Ser Thr Ala Leu His

885

890

895

Asn Lys Leu Phe Asn Lys Val Phe Arg Cys Pro Met Ser Phe Phe Asp
 900 905 910

Thr Ile Pro Ile Gly Arg Leu Leu Asn Cys Phe Ala Gly Asp Leu Glu
 915 920 925

Gln Leu Asp Gln Leu Leu Pro Ile Phe Ser Glu Gln Phe Leu Val Leu
 930 935 940

Ser Leu Met Val Ile Ala Val Leu Leu Ile Val Ser Val Leu Ser Pro
 945 950 955 960

Tyr Ile Leu Leu Met Gly Ala Ile Ile Met Val Ile Cys Phe Ile Tyr
 965 970 975

Tyr Met Met Phe Lys Lys Ala Ile Gly Val Phe Lys Arg Leu Glu Asn
 980 985 990

Tyr Ser Arg Ser Pro Leu Phe Ser His Ile Leu Asn Ser Leu Gln Gly
 995 1000 1005

Leu Ser Ser Ile His Val Tyr Gly Lys Thr Glu Asp Phe Ile Ser Gln
 1010 1015 1020

Phe Lys Arg Leu Thr Asp Ala Gln Asn Asn Tyr Leu Leu Leu Phe Leu
 1025 1030 1035 1040

Ser Ser Thr Arg Trp Met Ala Leu Arg Leu Glu Ile Met Thr Asn Leu
 1045 1050 1055

Val Thr Leu Ala Val Ala Leu Phe Val Ala Phe Gly Ile Ser Ser Thr
 1060 1065 1070

Pro Tyr Ser Phe Lys Val Met Ala Val Asn Ile Val Leu Gln Leu Ala
 1075 1080 1085

Ser Ser Phe Gln Ala Thr Ala Arg Ile Gly Leu Glu Thr Glu Ala Gln
 1090 1095 1100

Phe Thr Ala Val Glu Arg Ile Leu Gln Tyr Met Lys Met Cys Val Ser
 1105 1110 1115 1120

Glu Ala Pro Leu His Met Glu Gly Thr Ser Cys Pro Gln Gly Trp Pro
 1125 1130 1135

Gln His Gly Glu Ile Ile Phe Gln Asp Tyr His Met Lys Tyr Arg Asp
 1140 1145 1150

Asn Thr Pro Thr Val Leu His Gly Ile Asn Leu Thr Ile Arg Gly His
 1155 1160 1165

Glu Val Val Gly Ile Val Gly Arg Thr Gly Ser Gly Lys Ser Ser Leu
 1170 1175 1180

Gly Met Ala Leu Phe Arg Leu Val Glu Pro Met Ala Gly Arg Ile Leu
 1185 1190 1195 1200

Ile Asp Gly Val Asp Ile Cys Ser Ile Gly Leu Glu Asp Leu Arg Ser
 1205 1210 1215

Lys Leu Ser Val Ile Pro Gln Asp Pro Val Leu Leu Ser Gly Thr Ile
1220 1225 1230

Arg Phe Asn Leu Asp Pro Phe Asp Arg His Thr Asp Gln Gln Ile Trp
1235 1240 1245

Asp Ala Leu Glu Arg Thr Phe Leu Thr Lys Ala Ile Ser Lys Phe Pro
1250 1255 1260

Lys Lys Leu His Thr Asp Val Val Glu Asn Gly Gly Asn Phe Ser Val
1265 1270 1275 1280

Gly Glu Arg Gln Leu Leu Cys Ile Ala Arg Ala Val Leu Arg Asn Ser
1285 1290 1295

Lys Ile Ile Leu Ile Asp Glu Ala Thr Ala Ser Ile Asp Met Glu Thr
1300 1305 1310

Asp Thr Leu Ile Gln Arg Thr Ile Arg Glu Ala Phe Gln Gly Cys Thr
1315 1320 1325

Val Leu Val Ile Ala His Arg Val Thr Thr Val Leu Asn Cys Asp His
1330 1335 1340

Ile Leu Val Met Gly Asn Gly Lys Val Val Glu Phe Asp Arg Pro Glu
1345 1350 1355 1360

Val Leu Arg Lys Lys Pro Gly Ser Leu Phe Ala Ala Leu Met Ala Thr
1365 1370 1375

Ala Thr Ser Ser Leu Arg
1380